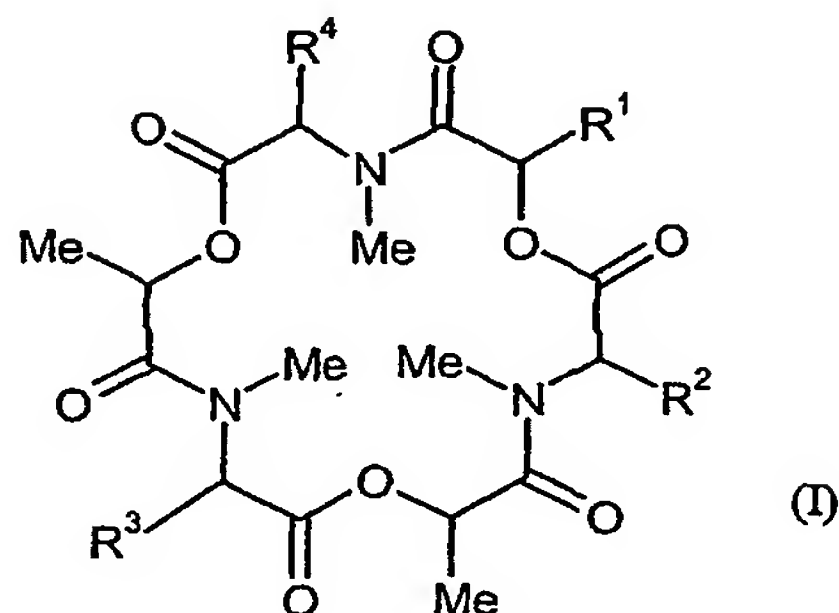


**Patent claims**

1. Cyclic depsipeptides of the general formula (I) and salts thereof



5 in which

$R^1$  represents nitrobenzyl or  $R'R''N$ -benzyl

where

10

$R'$  and  $R''$  independently of one another each represent hydrogen, optionally substituted  $C_1$ - $C_4$ -alkyl, formyl,  $C_1$ - $C_4$ -alkoxy- $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -alkoxycarbonyl, hydroxy- $C_1$ - $C_2$ -alkylsulphonyl- $C_1$ - $C_2$ -alkyl

15

or

20

$R'$  and  $R''$  together with the nitrogen atom to which they are attached form an optionally substituted mono- or polycyclic saturated or unsaturated heterocycle which is optionally bridged and/or spirocyclic and which contains 1 to 3 further heteroatoms from the group consisting of nitrogen, oxygen and sulphur, or  $R'$  and  $R''$  together form  $C_3$ - $C_5$ -alkylenemonocarbonyl or an optionally substituted diacyl radical of a  $C_4$ - $C_6$ -dicarboxylic acid, and

25

$R^2$ ,  $R^3$  and  $R^4$  independently of one another represent  $C_1$ - $C_4$ -alkyl,

and optical isomers and racemates thereof.

30

2. Depsipeptides of the general formula (I) and salts thereof according to Claim 1

in which

$R^1$  represent nitrobenzyl or  $R'R''N$ -benzyl

where

5

$R'$  and  $R''$  independently of one another each represent hydrogen,  $C_1$ - $C_3$ -alkyl, in particular methyl, ethyl,  $C_1$ - $C_3$ -alkoxy- $C_1$ - $C_3$ -alkyl, in particular methoxyethyl, 2-hydroxyethylsulphonyl- $C_1$ - $C_2$ -alkyl, in particular 2-hydroxyethylsulphonylethyl or

10

$R'$  and  $R''$  together with the nitrogen atom to which they are attached represent N-pyrrolidino, N-piperidino, N-piperazino, N-morpholino, N-2,6-dimethylmorpholino, N-thiomorpholino, N-pyrazolo, N-imidazolo, 2-oxopyrrolidin-1-yl, 2-oxopiperidin-1-yl, 2-oxoazepan-1-ylmethyl, succinimino, maleinimino or glutarimino,

15

$R^2$ ,  $R^3$  and  $R^4$  independently of one another represent  $C_1$ - $C_4$ -alkyl,

and optical isomers and racemates thereof.

20

3. Depsipeptides of the general formula (I) and salts thereof according to Claim 1

in which

25

$R^1$  represents 4-nitrobenzyl, 4-aminobenzyl, 4-morpholinobenzyl, 4-hydroxyethylsulphonylethylaminobenzyl,

$R^2$  and  $R^4$  independently of one another represent  $C_1$ - $C_4$ -alkyl, in particular methyl, isopropyl, isobutyl or sec-butyl,

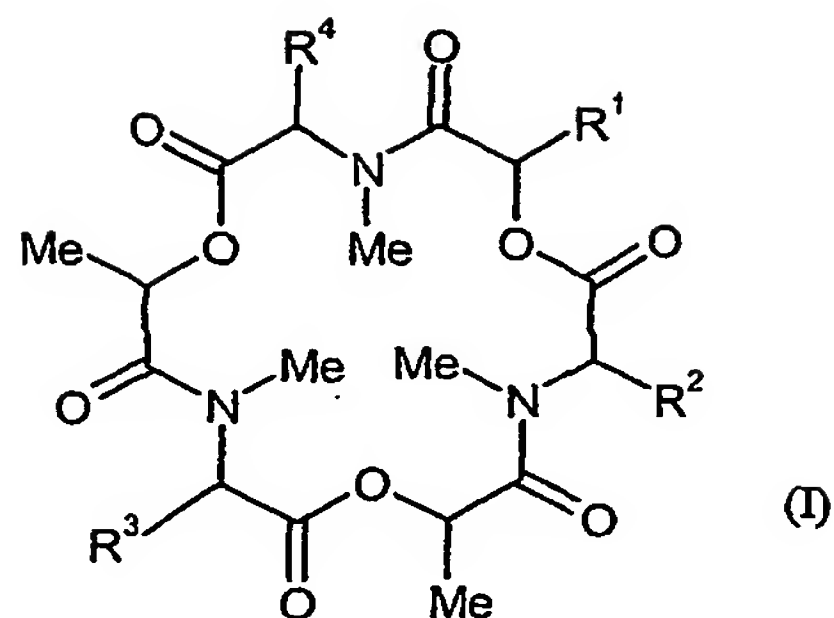
30

$R^3$  represents methyl or ethyl,

and optical isomers and racemates thereof.

35

4. Process for preparing the cyclic depsipeptides of the general formula (I) and salts thereof



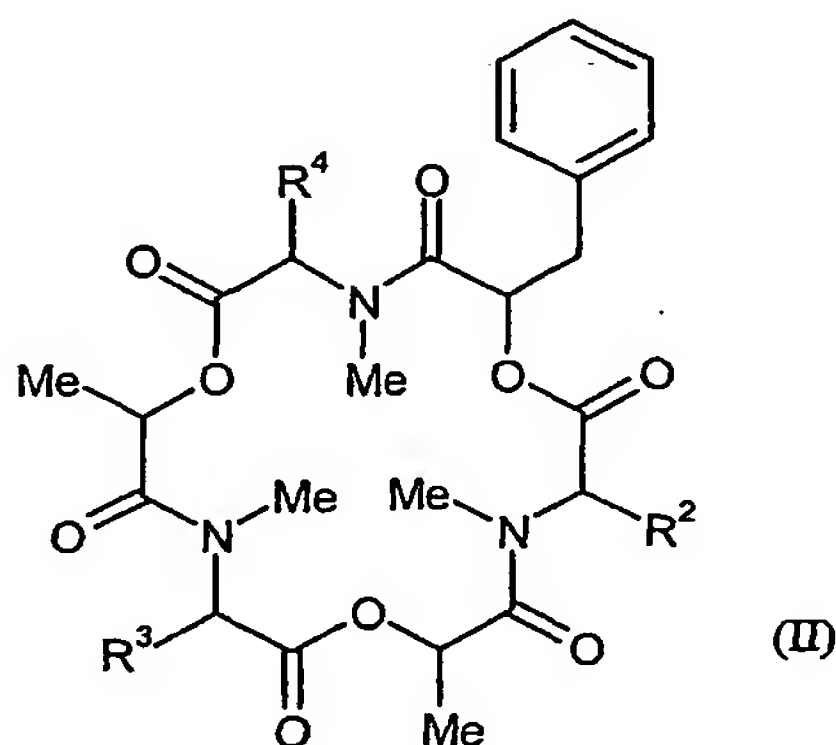
in which

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are as defined under item 1

5

which comprises

- a) in a first step, nitrating the cyclic depsipeptides of the general formula (II) and salts thereof



10

in which

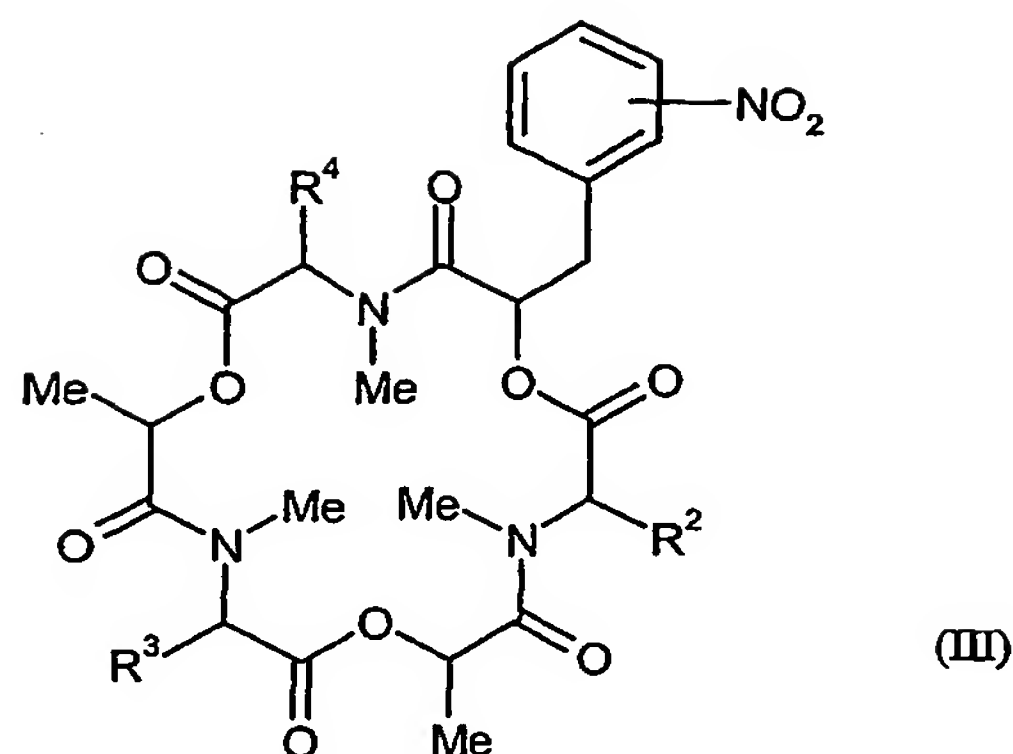
R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are as defined under item 1

15

in the presence of a nitrating agent and, if appropriate, in the presence of a diluent, and

- b) if appropriate, in a second step, reducing the nitro group in the cyclic depsipeptides of the general formula (III) or salts thereof obtained in this manner

20



in which

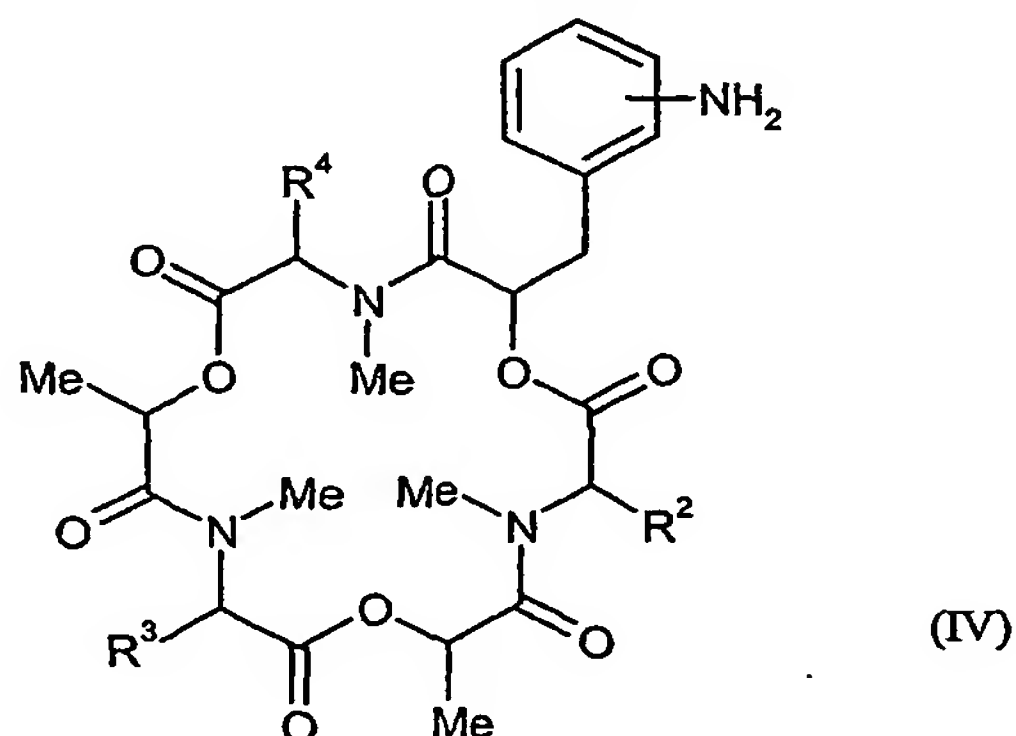
$R^2$ ,  $R^3$  and  $R^4$  are as defined under item 1

5

in the presence of a reducing agent and, if appropriate, in the presence of a diluent, and

10

c) if appropriate, in a third step, aminoalkylating the cyclic depsipeptides of the general formula (IV) and salts thereof



in which

$R^2$ ,  $R^3$  and  $R^4$  are as defined under item 1

15

to introduce the radicals  $R'$  and  $R''$ , in the presence of a suitable aldehyde and a reducing agent and, if appropriate, in the presence of a diluent, or

20

N-alkylating these depsipeptides in the presence of a suitable alkylating agent and a basic reaction auxiliary and, if appropriate, in the presence of a diluent, or

N-acylating these depsipeptides in the presence of a suitable acylating agent and a basic reaction auxiliary and, if appropriate, in the presence of a diluent.

- 5     5.     Compositions comprising a cyclic depsipeptide of the formula (I) according to Claim 1.
6.     Use of cyclic depsipeptides of the formula (I) according to Claim 1 for controlling endoparasites.
- 10     7.     Use of cyclic depsipeptides of the formula (I) according to Claim 1 for preparing medicaments.
- 15     8.     Method for controlling endoparasites which comprises allowing cyclic depsipeptides of the formula (I) according to Claim 1 to act on endoparasites and/or their habitat.